

※ 注意：請於試卷上依序作答，並應註明作答之大題及其題號。

細菌學的部分

1. 請簡述革蘭氏染色原理，革蘭氏陰性菌和陽性菌染色性差異的原因。(5分)
2. 請填入下列疾病的病原學名及細菌革蘭氏染色特性。(每格二分)
 - a. 豬進行性萎縮性鼻炎(Swine progressive atrophic rhinitis)
() ()
 - b. 貓抓病(Cat scratch disease) () ()
 - c. 魚類細菌性腎病(Bacterial kidney disease)
() ()
 - d. 炭疽病(Anthrax) () ()
 - e. 鸚鵡熱(Psittacosis) () ()

病毒學的部分

1. 請簡述反轉錄病毒的複製。(5分)
2. 請填入下列疾病的病原學名及病毒分類上屬於哪個病毒科。(每格二分)
 - a. 藍舌病(Blue tongue disease) () ()
 - b. 日本腦炎(Japanese encephalitis) () ()
 - c. 蝦桃拉病(Taura syndrome) () ()
 - d. 馬立克病(Marek's disease) () ()
 - e. 鴨病毒性腸炎(Duck virus enteritis) () ()

I. 免疫學 25分

簡答題 (歡迎以圖示法作答)

1. 請說明藥物造成 Type I hypersensitivity 之 mechanism。(5分)
2. 請說明 Antibody diversity 形成之 mechanism。(5分)
3. 請說明 Thymocytes 如何在 thymus 進行 positive & negative selection。(3分)
4. 請舉例說明 Cytokines 之 redundancy 及 antagonism 的特性。(2分)
5. 請說明造成 Autoimmunity 的 mechanisms。(5分)
6. 何謂 Cross priming? 其重要性為何?(5分)

II. 寄生蟲學 25分

見背面

是非題 (正確請寫 O，錯誤請寫 X) (答錯扣 1.5 分，沒答扣 1 分)

1. Sandflies transmit *Leishmania* spp. hemoflagellates of man and dog.
2. *Demodex* spp. are tiny, wormlike ticks with short, stubby legs that live in the hair follicles and sebaceous glands of mammals.
3. *Giardia* parasitizes the large intestine where these organisms attach to the mucosal cells by their sucking discs.
4. *Cryptosporidium* and *Toxoplasma gondii* are important opportunistic pathogens in immunodeficiency individuals.
5. The definitive and intermediate hosts of *Toxoplasma gondii* are all other warm-blooded animals and members of the family Felidae respectively.
6. *Babesia* spp. are apicomplexan parasites of the erythrocytes
7. Cysticercoids of *Dipylidium caninum* develop in fleas and biting lice, and the dog acquires this trematode parasite while nipping its insects.
8. *Rhabditis strongyloides* is a free-living inhabitant of decaying organic matter but occasionally produces a pruritic, hyperemic dermatitis.
9. Type II or winter ostertagiosis usually occurs in pastured young cattle, the worms maturing without first passing through a developmental arrest.
10. Adult *Dictyocaulus* live in the lumen of the bronchial tree, where they cause chronic bronchitis.
11. Creeping eruption is a linear, tortuous, erythematous, and intensely pruritic eruption of the skin usually caused by migration of a nematode larva.
12. *Metastrongylus* sp. eggs do not hatch or develop into infective larvae unless they are ingested by an earthworm.
13. Neonatal infection via the mammary glands is an important route of infection of *Toxocara cati* in kittens.
14. The intermediates hosts of *Dirofilaria immitis* are ticks.

15. The tiny adults of *Trichinella spiralis* are found embedded in the muscle of swine, carnivorans, and man.
16. The Acanthocephala is a highly specialized parasites of the vertebrate respiratory tract.
17. Adult *F. hepatica* live in the bile ducts of ruminant and other mammalian hosts.
18. The slender male *Schistosoma* spp. lie in the gynecophoric canal of the somewhat stouter female.
19. Metacercaria is developed from cercaria.
20. Hydatid cysts are metacestodes of *Echinococcus granulosus*.
21. Eggs of eucestodes contain fully developed oncospheres when they are passed, but they are not immediately infective for the intermediate host.
22. A tape worm is a strobila of progressively maturing, independent, reproductive proglottis.
23. *Eimeria* spp. are gastrointestinal parasites of a wide range of vertebrate hosts.
24. *Balantidium coli*, a normal element of the intestinal fauna of the pig, is very large and covered with cilia.
25. Adult *Strongyloides ransomi* lies deeply embedded in the mucous membrane of the swine large intestine.